

Gap Analysis

Community IT Planning and Development

Objective

In order to remain competitive in the global economy, it is critical that as many Nebraska communities as possible use information technology to enhance economic development opportunities and quality of life. It is also critical that Nebraska businesses utilize information technology to expand markets, reduce costs, and improve efficiency.

Justification

Information technology is transforming the economy and society, creating a completely new paradigm. Businesses are using telecommunications to speed up transactions, reduce costs, and expand their markets. Consumers are buying books, CDs, food, gifts, and clothing online. Families are exchanging photos via e-mail. Students at all levels are taking courses via distance learning technologies. Telemedicine is making mental health services and other specialist services available in remote, underserved areas of the state.

A coordinated effort to address the need for information technology training and development for citizens, businesses, communities, and local governments is needed to help Nebraska meet the challenges of the Information Age. These challenges include:

Encouraging the adoption of technology by citizens. According to a number of indicators and polls, however, Nebraskans are slower to adopt technology than the U.S. as a whole. In September, 2001, approximately 45% of Nebraska households were online. In comparison, approximately 50% of U.S. households were online. Nearly half (49%) of Nebraska households with children (ages 3-17) had Internet access, ranking Nebraska 31 out of the 50 states in 2001.

Encouraging the adoption of technology by small businesses. Nebraska firms also appear to be adopting e-commerce at a slower rate than firms nationwide. A 2001 survey of small businesses conducted by the NFIB found that 45% of small firms have a Web site. In comparison, a 2004 survey of Nebraska businesses found that only 31% of small businesses have a Web site.

Accelerating the deployment of advanced services. In 2003, 86% of the state's population had access to broadband either through cable modem, dsl, or fixed wireless broadband services. These services typically provide speeds of one to two megabits per second. In four to five years, some experts estimate that broadband with speeds of 25 to 40 megabits per second will be needed. In the future, mobile wireless data networks and Voice Over IP services will become increasingly important.

Providing public access to computers and the Internet. Most libraries in Nebraska provide public access to computers and the Internet. However, in some communities access is restricted by the number of computers available and by limited library hours.

Using technology to provide government and community services. Local governments can use technology to more efficiently and effectively deliver community services. Local government e-government efforts are sometimes hampered by lack of technology training and limited budgets.

Expanding educational opportunities. Distance learning technologies are expanding educational opportunities at all levels.

Improving access to health care through information technology. Through telehealth technologies, residents of rural areas can have better access to mental health and other specialist services. Home telehealth is one of the fastest growing applications of telemedicine, but is not yet widely used in Nebraska.

Incorporating technology-related development in to local development plans. While Nebraska's larger communities are using information technology to enhance economic development opportunities, many of Nebraska's smaller communities are just beginning to realize the importance of information technology to their economic viability.

Current Status

Community information technology development is currently addressed by several organizations including the University of Nebraska, Nebraska Information Technology Commission, the Center for Rural Affairs' REAP program, the AIM Institute, and the Nebraska Department of Economic development. Some of these efforts are loosely coordinated under the umbrella of Technologies Across Nebraska, a partnership of over 40 organizations led by the University of Nebraska and the Nebraska Information Technology Commission.

- Technologies Across Nebraska, a partnership of over 40 organizations led by the University of Nebraska and the Nebraska Information Technology Commission, has worked with 15 communities or regional groups over the past two years to develop technology plans. The impact of the IT Planning and Mini Grant program has been significant. Two communities received federal grants totaling over \$400,000 to implement their plans. A new business has started in a third community. Several communities now have broadband services available. Other communities are focusing on the technology needs of small businesses, offering e-commerce and technology training. One community has developed a video conferencing center available to local businesses and residents. Technologies Across Nebraska will expand the program to nine additional communities this year.
- Technologies Across Nebraska has developed nationally recognized resources to help communities effectively use technology to enhance economic development, including the Community IT Planning workbook and the Community IT Toolkit. Technologies Across Nebraska's quarterly newsletter, TANgents, reaches 1,500 individuals.
- The University of Nebraska Rural Initiative has partnered with Congressman Osborne's office and the J. D. Edwards program to place interns in rural communities. Now in its second year, the program placed 12 interns in rural

communities last summer. Many of the interns are helping local businesses and organizations effectively utilize information technology.

- Several entities currently offer e-commerce training. The University of Nebraska's Communities of the Future Team offers e-commerce training in communities. Community colleges and the Center for Rural Affairs' Reap program also offer e-commerce training. Through a federal grant, the AIM Institute is working with businesses in Fremont, Norfolk, and Columbus to develop or enhance Web sites. The Department of Economic Development has begun providing e-commerce training upon request to communities which have participated in the Business Expansion and Retention program. The Department of Economic Development's new Interasset program promises to provide technical assistance to rural businesses form strategic and growth objectives highlighting technology and international business relationships. The University of Nebraska Rural Initiative, Nebraska Rural Development Commission, and the Nebraska Information Technology Commission are working together to promote and coordinate e-commerce training across the state.
- University of Nebraska's Communities of the Future Team offers e-government training in communities. The e-government program provides Internet training to local government officials and helps them understand how e-government can be used to more efficiently and effectively provide services and information to citizens. The program complements Nebraska Online's efforts to develop Web sites for counties in Nebraska. All but twenty-two counties in Nebraska now have Web sites. A number of additional counties are expected to develop Web sites within the next year.
- The Public Service Commission's Nebraska Internet Enhancement fund will provide assistance to communities, in partnership with telecommunications providers, to enhance advanced telecommunications services.
- Introductory computer and Internet training are offered by many entities including community colleges, the University of Nebraska's Communities of the Future Team, and public libraries.
- Public libraries also play an important role in providing public access to computers and the Internet. The Nebraska Library Commission maintains a database of public access sites in Nebraska available at http://www.nol.org/home/CIO/public_access/.
- The Nebraska Hospital Association is heading up an effort to develop a statewide telehealth network which will connect all hospitals in Nebraska. Other partners in this effort include the University of Nebraska, the Nebraska Division of Communications, the Nebraska Health and Human Services System, the Office of the Chief Information Officer and the Nebraska Information Technology Commission, Nebraska hospitals, and the Nebraska Public Service Commission.

Future State

Technology-related development is a continuous process. Although significant progress is being made, further progress needs to be made. In the future it is hoped that Nebraska communities will more effectively use information technology, as evidenced by the following indicators:

All Nebraska counties will have Web sites.

- The number of communities developing local technology plans will increase.
- The number of businesses using e-commerce in Nebraska will increase.
- The number of households using the Internet will increase.
- The number of households and businesses subscribing to broadband Internet access will increase.
- All Nebraska hospitals will be connected through a statewide telehealth network.

Recommended Actions

- Support existing programs which promote the use of information technology in Nebraska's communities.
- Strengthen efforts to coordinate technology-related development programs.
- Reinstate funding for the Nebraska Information Technology Commission's Community Technology Fund.

Funding Sources

Because IT Community IT Planning and Development is a broad issue, a number of funding sources are used. Staff support for technology-related development is embedded in the budgets of several organization including the University of Nebraska's Communities of the Future Team, the Nebraska Information Technology Commission, the Nebraska Public Service Commission, and the Nebraska Department of Economic Development.

Two state grant programs provide assistance to communities. The Nebraska Internet Enhancement Fund provides assistance to communities, in partnership with telecommunications providers, to enhance advanced telecommunications services. The Nebraska Community Technology Commission's Community Technology Fund was created by the legislature to provide assistance for community technology projects. The grant program is currently not funded.

The Federal Universal Service Fund provides support for telecommunications in education, libraries and health care. The fund also provides support for basic services in high-cost areas and for basic service for low-income individuals. The Nebraska Universal Service Fund provides support of basic services in high-cost areas and for low-income individuals and will provide support for telecommunications services for telehealth.

In addition to the Federal and Nebraska Universal Service Funds, the Nebraska Statewide Telehealth Network will also receive support from bioterrorism funding from the Health and Human Services System. Several hospital systems have received grants from the USDA Rural Utilities Service Distance Learning and Telemedicine Program and from the Office for the Advancement of Telehealth.

The Bill and Melinda Gates Foundation has provided computers and assistance to libraries in Nebraska. The Nebraska Library Commission administers the federally-funded Library Services and Technology Act (LSTA) grant program, providing additional assistance to libraries.

Potential future funding sources include the U.S. Economic Development Administration, the U.S. Department of Commerce's Technologies Opportunities Program, the USDA Rural Utilities Service Distance Learning and Telemedicine .

Supporting Information

Technologies Across Nebraska

Technologiesacrossnebraska.unl.edu

Community IT Toolkit

www.nitc.state.ne.us/toolkit